
CORROSION REHABILITATION
FACILITY BRANCH
MARINE CORPS BASE
USMC
FLEET MARINE FORCE
SERVICE
SUPP
CAMP SMEDLEY D. BUTLER
CAMP
KINSER

Introduction

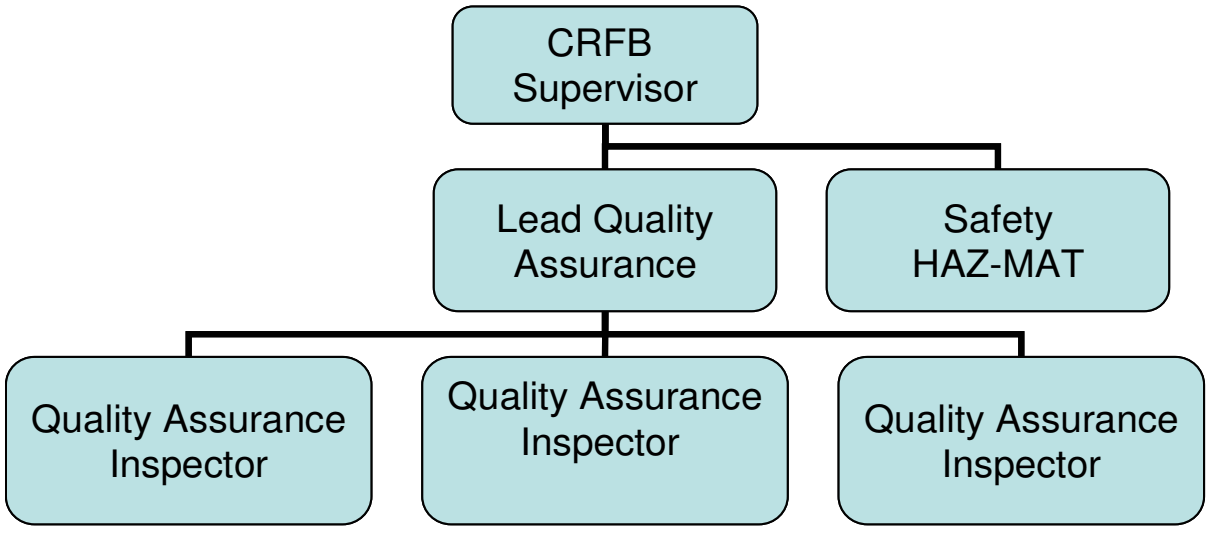
The Corrosion Rehabilitation Facility Branch (CRFB) is a branch of Marine Corps Base Camp Smedley D. Butler Assistant Chief of Staff G-4.

Mission

The mission of the Corrosion Rehabilitation Facility Branch (CRFB) is to provide 3rd through limited 5th echelon corrosion repair and protection, as well as complete painting and spot painting of all Ground Combat and Support Equipment within the III MEF.
The CRFB accomplishes its mission by Minimizing maintenance cycle time for equipment inducted for rehabilitation. Providing quality Intermediate Maintenance Activity (IMA) support and providing technical advice for the III MEF on matters related to corrosion protection and prevention
The CRFB's primary goal is to provide a cost and time effective alternative to transporting equipment to and from the Marine Corps Logistic Bases, Albany, Georgia and Barstow, California.

History

The initial corrosion rehabilitation contract was established in the early 1970s using local vendors and was moved to U.S. Government facilities in 1981. In 1994 the main building aboard Camp Kinser was constructed. It is a state-of-the-art facility for body corrosion rebuild. On November 4, 2005 the Corrosion Rehabilitation Facility became a branch under AC/S G-4, Marine Corps Base, Camp Smedley D. Butler and an all civilian staff took the helm.
Currently six Civilian Marines man the CRFB providing quality assurance over about 38 contract employees. Figure 1 is the current organizational chart.



The Facility

The Okinawa Corrosion Rehabilitation Facility is located at Building 616 Camp Kinser Okinawa, Japan. The building was a state-of-the-art facility when constructed in 1994.

- A large hazardous material storage area in building 616A provides storage space for a 90 day supply of paint, thinner, undercoat and other associated hazardous materials.
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The hazardous waste room provides space for waste awaiting pick-up for disposal by the Joint Environmental Material Management Services (JEMMS) contractor.

Although no longer state-of-the-art, the sandblasting bay is a modern facility. It is large enough to accommodate two amphibious track vehicles at the same time.

The Torit Downflo system draws dust and particulates from the sandblast area. Moisture free compressed air extends the life-cycle of the canister filters. Residue is deposited into hampers holding tri-wall hazardous waste containers, ready for removal.

The CRFB has four double bays for body work and two paint tunnels with four double bays in each.

Work Flow

The first step of the repair cycle is steam cleaning.

This process removes excess grease, oil, dirt and road grit and readies the unit for sandblasting.

Sandblasting

- Sandblasting reveals necessary body repairs that may be hidden under paint or rust. Weak metal wi not withstand the blast process thereby exposing needed repair. Sandblasting also removes old pair providing a smoother surface to work in the paint preparation stage.

Sandblasting exposes all seams and welds where cracks and corrosion would not be otherwise visible to the inspector.

Compare this M-116 trailer before and after sandblasting. At induction the trailer paint is pealing and exposed metal is corroding.

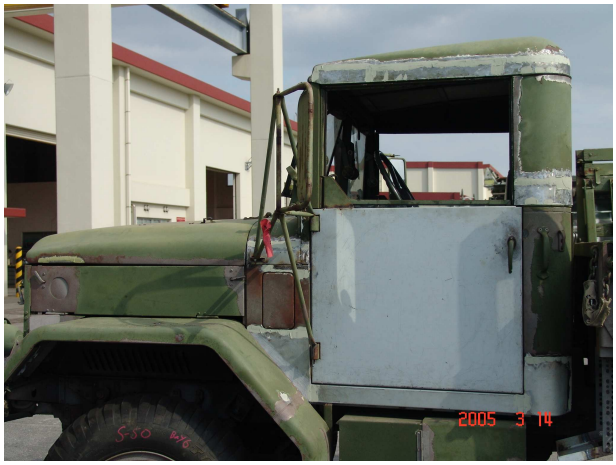
Sandblasting clears the paint chips, blasts off the rust and leaves a very clean, workable surface.

The clean, blasted surface readily accepts primer and top coat, producing an excellent end product.

Body Work

Most equipment will require some degree of body work. A wide range of techniques are used to make repairs as necessary.

On the 2 ½ ton truck pictured below panels and doors are fabricated while less severely corroded areas are patched by cutting out corroded areas and welding in new steel.

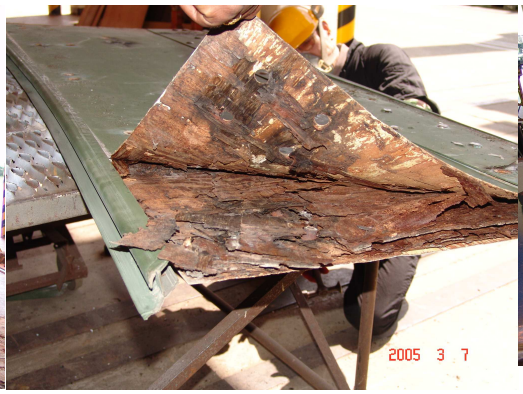


Armor plating will be sandblasted, hand sanded and inspected prior to painting. The tailgate was fabricated from scratch while other areas on this trailer will be patched.

Like materials are used for all repairs. Sheet metal patches are made on Quad cons and fiberglass repairs are made on the hood of the humvee.

Doors and panels are either repaired or replacements fabricated.

The Formosan termite is pervasive in Okinawa. New laminated panels must be fabricated and when termites find their way into the plywood backing in a quadcon.



Okinawa CRFB also accomplishes reimbursable corrosion rehabilitation and equipment painting for sister service units in Okinawa such as this Air Force flat bed trailer (below left) and this US Army trailer that is used for humanitarian assistance (below right).

Equipment from 10 ASG, MALS 36 and Seabees is also accomplished on a reimbursable basis.

Hand Sanding and Paint Preparation

- All equipment is hand sanded prior to being painted. This process smoothes the edges of any remaining paint so no chipping or flaking will occur when the primer coat is applied. Areas that are not to be painted are masked or otherwise protected during this step.

Equipment is now ready to receive a full coat of primer paint.

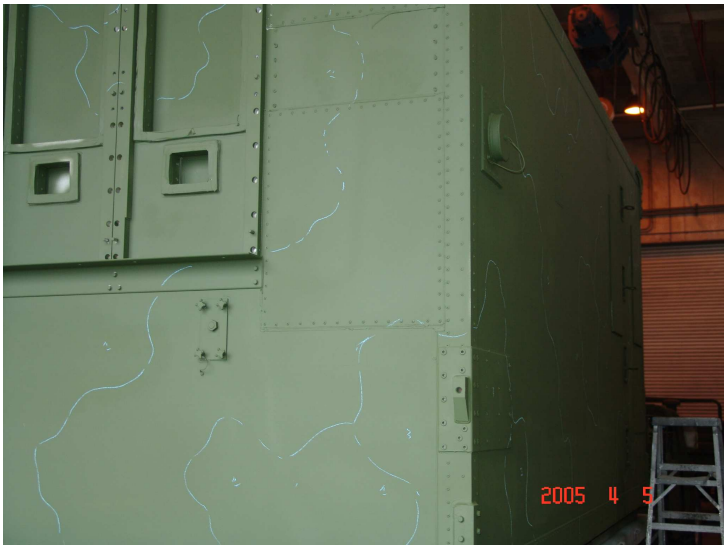
Primer

- The entire unit is painted with primer. Exhaust stacks are painted with heat resistant black paint.

CARC Green Base Coat

The chemical agent resistant coating (CARC) is ready to be applied. The entire unit is painted with a green base coat.

The camouflage pattern is then chalked on to the base coat to be filled-in during the next step of the process.

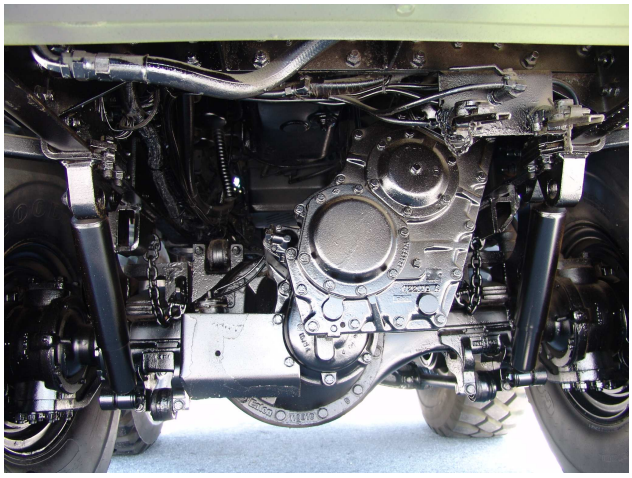


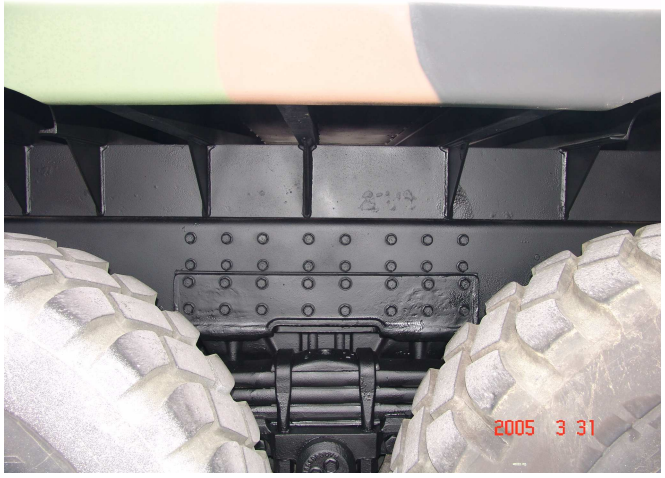
Camouflage Pattern

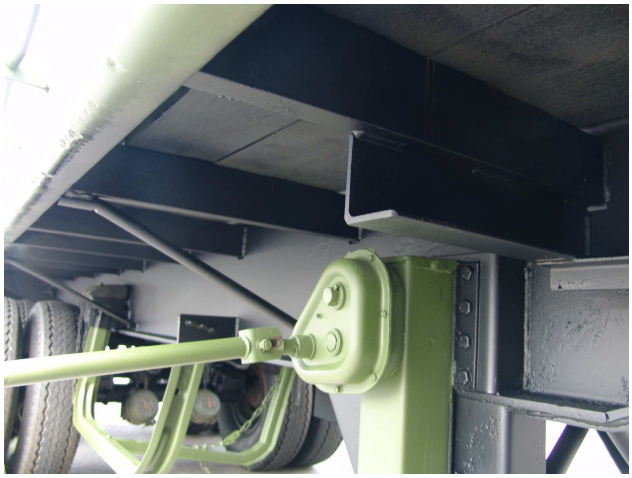
The camouflage pattern is achieved by filling in the appropriate areas of the chalked pattern with black and brown CARC paint. Quality assurance personnel inspect every step of the process.

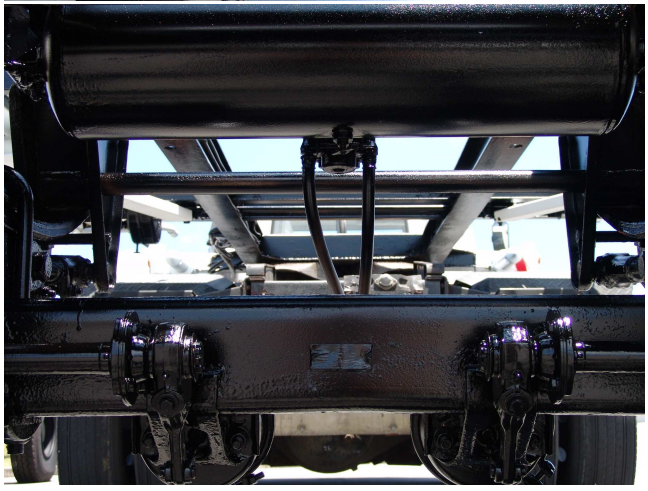
Undercoat

Most assets receive undercoating. This is a tar-like substance that seals the undercarriage from the elements. Products utilized by the CRFB meet or exceed Ziebart Specifications.



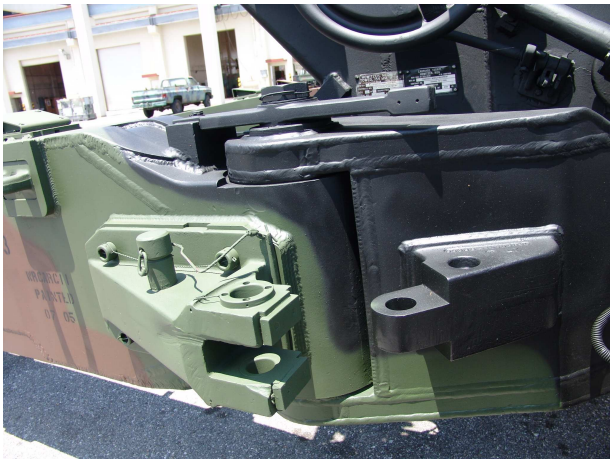






Rust Inhibitor Application

- To provide additional corrosion protection rust inhibitor is applied to all hinged areas, crevices and any area where metal meets metal such as doors, hatches, tailgates, etc



The Final Product

Regardless of type, equipment looks brand new once corrosion rehabilitation is complete. The process extends equipment service life and protects from the corrosive environment.

Cost Savings available At the CRFB

- The CRFB provides an excellent opportunity for Okinawa based units to extend the service life of their equipment at incomparable prices. The Table below illustrates the cost savings by listing: replacement cost, one-way shipping cost to Barstow and the average rehabilitation cost at the Camp Kinser CRFB. Notice that in many cases complete rehabilitation at the CRFB is only a fraction of the one-way shipping cost. Additionally, equipment inducted at the CRFB will be completed and returned much faster than could possibly be accomplished with the shipping time incurred by a stateside facility.

TACM	Nomenclature	Replacement Cost	Shipping Cost	CRFB Rehab Cost
B1021	TQ6 806 A Generator	$25,073	$1,701	$727
C4433	Quadcon	$2,546	$1,701	$727
D0209	MK-48 LVS	$137,467	$4,777	$877
D0860	M-105 Trailer	$8,524	$1,591	$839
E0880	M149 Water Bull	$12,955	$2,227	$839
E0796	Amphibious Assault Vehicle	$2,000,000	$10,883	$1,087
D1158	M-1123 HMMWV	$60,409	$1,831	$839

Points of Contact
Corrosion Rehabilitation
Facility Branch

• Supervisor	637-1524
• Quality Assurance Lead	637-2004
• Quality Assurance Inspectors	637-2005
• Safety Specialist	637-2329
• Assistant Chief of Staff G-4	645-7356
• Deputy, Assistant Chief of Staff G-4	645-7356